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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/827,465

04/19/2004

Terry L. Turner

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

CHUKWURAH, NATHANIEL C

ART UNIT

PAPER NUMBER

3721

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/827,465

Applicant(s)

TURNER ET AL.

Examiner

Nathaniel C. Chukwurah

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the remarks filed on 11/29/2006.
2. The Terminal Disclaimer filed on 11/29/2006 has been approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mooty et al. (US 6,656,626) in view of Maeda et al. (US 5,189,570).

With regard to claim 23, the reference of Mooty et al. discloses a power tool housing (102) having a mechanism for ejecting a battery pack (108), comprising: the housing including motor portion (103) and a handle portion (104) extending away from the electric motor portion and a base portion (106) at a distal end of the handle portion away from the motor portion to form a terminus of the power tool housing (102), a frame (115 mounting surface) in the base portion (106); a cavity (114 opening) in the frame for receiving a battery pack (108) at the distal end of the handle portion (104); a member (116, 119) for receiving a member (152,155) on the battery pack (108) to couple the battery pack with the power tool (100);

a biasing member (125, 130) in the cavity (114), the biasing member (125, 130) for ejecting (releasable) the battery pack (108) from the receiving member (116, 119); and the battery pack (108) received in the receiving member (116, 119) so that the battery pack is in contact with the biasing member (125, 130).

The reference of Mooty et al. discloses the claimed subject matter but lacks the specific teaching of the battery pack secured on the frame, and in contact with the biasing member in a compressed condition.

The reference of Maeda et al. teaches the claimed feature as shown in Figures 9 and 10 wherein the battery pack (70) is secured and in contact with the biasing member (81) in compressed condition, further the battery pack is ejected and released from the frame.

In view of the teaching of the references of Maeda et al., it would have been obvious to one skilled in the art at the time of the invention to modify the battery pack receiving member of Mooty et al. such that the secured battery pack compresses the biasing member in order to more effectively detach of the battery pack from the frame.

With regard to claim 24, the power tool housing of Mooty et al., includes the cavity

(114 opening) defined by a pair of opposing side walls and an end wall adjoining the opposing side walls as shown in Figures 7A and 7B.

With regard to claim 25, the receiving member (114 opening) of power tool housing of Mooty et al. includes a pair of extending and opposing rails on each side wall as shown in Figure 6.

With regard to claim 26, the power tool housing of Mooty et al. includes channels formed adjacent the side walls and between the rails and frame as shown in Figure 6, for receiving mating rails (152, 155) on the battery pack (108).

With regard to claim 27, the power tool housing Mooty et al. includes at least one helical spring (125).

With regard to claim 28, the modified power tool housing of Mooty et al. includes the biasing member extending from an end wall of the frame.

With regard to claim 29, the reference of Mooty et al. discloses a power tool (100), comprising: a battery pack (108); a housing (102), the housing (102) including a motor portion (103), a handle portion (104) adjacent the motor portion (103) and extending away from the motor portion and a base portion (106) at a distal end of the handle portion (104) away from the motor portion (103) forming a terminus of the housing (102), a motor (electric motor) in the housing (102), an output (105) coupled with the motor (electric motor); an activation member (107)

for activating the motor (electric motor); a mechanism (securement) on base portion (106) of the housing (102) for receiving a battery pack (108) at the distal end of the handle portion (104) including: a frame (115 mounting surface); a cavity (114 opening) in the frame (115) for receiving a battery pack (108), a member (116, 119) for receiving a member (152,155) on the battery pack (108) to couple the battery pack with the housing (102); a biasing member (125, 130) in the cavity (114 opening), the biasing member (125, 130) for ejecting the battery pack (108) from the housing (102), and the battery pack (108) received in the receiving member (116, 119) so that the battery pack (108) is in contact with the biasing member (125, 130) such that the battery pack(108) is secured on the housing (102).

The reference of Mooty et al. discloses the claimed subject matter but lacks the specific teaching of the battery pack secured on the frame, and in contact with the biasing member in a compressed condition.

The reference of Maeda et al. teaches the claimed feature as shown in Figures 9 and 10 wherein the battery pack (70) is secured and in contact with the biasing member (81) in compressed condition, further the battery pack is ejected and released from the frame.

In view of the teachings of the reference of Maeda et al., would have been obvious to one skilled in the art at the time of the invention to modify the battery pack receiving member of Mooty et al. such that the secured battery pack compresses the biasing member in order to more effectively detach of the battery pack from the frame.

With regard to claim 30, the power tool (100) of Mooty et al., includes the cavity (114 opening) defined by a pair of opposing side walls and an end wall adjoining the opposing side walls as shown in Figures 7A and 7B.

With regard to claim 31, the receiving member (114 opening) of the power tool of Mooty et al. includes a pair of extending and opposing rails on each side wall as shown in Figure 6.

With regard to claim 32, the power tool of Mooty et al. includes channels formed adjacent the side walls and between the rails and frame as shown I Figure 6, for receiving mating rails (152, 155) on the battery pack (108).

With regard to claim 33, the power tool of Mooty et al. includes at least one helical spring (125).

With regard to claim 34, the modified power tool of Mooty et al. includes the biasing member extending from an end wall of the frame.

With regard to claim 35, the battery pack of the power tool of Mooty et al. includes a pair of rails (152, 155) mating in the channels as shown in Figure 6.

With regard to claim 36, the battery pack (108) rails of the power tool of Mooty et al. includes an upper portion (154 Fig. 11), lower portion (158 Fig. 11) and a channel as shown in Figure 11 between the upper and lower portions.

With regard to claim 37, the modified power tool of Mooty et al. includes the at least one helical spring which is capable of partially ejecting the battery pack.

With regard to claim 38, the power tool of Mooty et al. includes as shown in Figures 13A, 13B and 13C, wherein the battery rails slide in the channels and the frame rails suspend the battery pack from the tool housing.

Response to Arguments

5. Applicant's arguments filed 11/29/2006 have been fully considered but they are not persuasive.

Applicant argues that the reference of Mooty relates to power tool, while Maeda et al. relates to magnetic head advancing and retracting device; therefore the reference are not combinable. The present invention relates to battery ejection mechanism which have been taught by the combination of the references as stated in the rejection.

Therefore, the examiner contends that the battery ejection mechanism in the reference of Maeda et al. as discussed in the rejection, when incorporated into the reference of Mooty, teaches the claim limitation.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

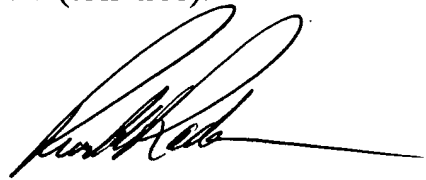
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathaniel C. Chukwurah whose telephone number is (571) 272-4457. The examiner can normally be reached on M-F 6:00AM-2:30PM.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NC

January 23, 2006.



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700